CLAIMS:

1. A working system for a circuit substrate, comprising:

a substrate conveyor which conveys a circuit substrate in a conveying direction along a straight line, and is capable of stopping the circuit substrate at a desired position in the conveying direction;

a moving apparatus having a movable member which is movable at least in a direction parallel to the conveying direction of the substrate conveyor, and is capable of moving the movable member to a desired location in the conveying direction;

a working head which is held by the movable member and performs a plurality of operations for prescribed points on the circuit substrate which has been stopped;

at least one of (a) a substrate detector which is moved by the moving apparatus at least in a direction parallel to the conveying direction, and detects a detection portion of the circuit substrate, which detection portion is predetermined as an object to be detected by the substrate detector while the circuit substrate is conveyed by the substrate conveyor, and (b) a stopper which is moved by the moving apparatus at least in a direction parallel to the conveying direction to a location in a path of the conveyance of the circuit substrate by the substrate conveyor, so as to be brought into contact with the circuit substrate to stop the circuit substrate;

a substrate stop position controller which controls the moving apparatus to have the at least one of the substrate detector and

the stopper move to a predetermined location, and controls at least one of the substrate conveyor and the stopper such that the substrate conveyor is controlled based on a result of a detection of the detection portion by the substrate detector positioned at the predetermined location and the stopper is controlled to be brought into contact with the circuit substrate, so as to control a stop position at which the circuit substrate is stopped.

2. A working system according to claim 1, wherein the moving apparatus has: a first movable member which is movable in one of a first direction and a second direction which intersect with each other in a plane parallel to a surface of the circuit substrate which has been conveyed by the substrate conveyor and then stopped; and a second movable member which is held by the first movable member such that the second movable member is movable in the other of the first direction and the second direction and which acts as the movable member holding the working head, the moving apparatus moving the second movable member to a desired location in the plane, and the at least one of the substrate detector and the stopper being held by one of the first movable member and the second movable member which is movable at least in the direction parallel to the conveying direction.

3. The working system according to claim 1 or 2, including the substrate detector, and wherein the substrate detector includes a non-contact type detector which detects the predetermined detection portion of the circuit substrate without contacting the

circuit substrate.

4. The working system according to claim 3, wherein the non-contact type detector includes a reflection-type detector which has a light emitting element and a light receiving element and detects the predetermined detection portion of the circuit substrate such that a light emitted from the light emitting element and then reflected by the predetermined detection portion is detected by the light receiving element.

5. The working system according to claim 3 or 4, wherein the non-contact type detector includes an imaging device for taking an image of the predetermined detection portion of the circuit substrate.

6. The working system according to claim 5, wherein the imaging device also acts as a fiducial-mark imaging device for taking an image of a fiducial mark on the surface of the circuit substrate to detect the stop position of the circuit substrate.

7. The working system according to claim 6, wherein the predetermined detection portion of the circuit substrate is the fiducial mark.

8. The working system according to any one of claims 1-7, wherein the substrate stop position controller includes a memory for storing location-related information which relates to a ~~position~~

location to which one of the first movable member and the second movable member which is movable at least in the direction parallel to the conveying direction is moved for detecting the predetermined detection portion with the substrate detector.

9. The working system according to claim 8, wherein the memory includes a portion for storing, as the location-related information, a piece of information which varies depending upon at least one of dimensions and a shape of the circuit substrate.

10. The working system according to claim 8 or 9, wherein the memory includes a portion for storing, as the location-related information, a piece of information which varies depending upon a direction in which the circuit substrate is conveyed by the substrate conveyor.

11. The working system according to any one of claims 8-10, wherein the memory includes a portion for storing, as the location-related information, a piece of information for stopping the circuit substrate at the center of the range of movement of the working head moved by the moving apparatus in the conveying direction.

12. The working system according to any one of claims 8-11, wherein the memory includes a portion for storing kinds and stop positions of a plurality of kinds of circuit substrates conveyed by the substrate conveyor, such that the stop positions are associated

with respectively corresponding kinds of the circuit substrates.

13. A working system according to any one of claims 1-12, including a stopper and a stopper moving device which operates to move the stopper to an operative position in the path of conveyance of the circuit substrate and to an inoperative position deviated from the path of conveyance.

14. The working system according to claim 13, comprising:

an arrival detector which is held by one of the first movable member and the second movable member which is movable at least in the direction parallel to the conveying direction, and which detects that the circuit substrate has reached a position where the circuit substrate is brought into contact with the stopper; and

a conveyor controller which stops the substrate conveyor in response to the detection by the arrival detector that the circuit substrate has reached the position where the circuit substrate is brought into contact with the stopper.

15. The working system according to any one of claims 1-14, further including a component supplying device, wherein the working head includes a component mounting head for mounting electronic circuit components supplied from the component supplying device at prescribed points on the circuit substrate which has been stopped at the stop position.

16. The working system according to claim 15, wherein the component supplying device has a plurality of component feeders, each of which has a component supply portion, contains a multiplicity of electronic circuit components of one kind, and is adapted to sequentially feed the electronic circuit components one by one to the component supply portion, the plurality of component feeders being arranged in a row extending in a direction parallel to the conveying direction of the substrate conveyor.

17. The working system according to any one of claims 1-16, wherein the substrate conveyor is a belt conveyor including at least one pair of pulleys, a belt entrained around the at least one pair of pulleys, and a drive assembly which rotates at least one of the at least one pair of pulleys.

18. The working system according to claim 17, wherein the belt conveyor includes: a pair of belts which are spaced from each other in a direction perpendicular to the conveying direction; and a pair of substrate guides for the pair of belts, respectively, the substrate guides being disposed parallel to respective corresponding belts to function to guide opposite side faces of the circuit substrate.

19. The working system according to claim 18, wherein the belt conveyor includes an interval changing device for changing an interval between the pairs of belts and substrate guides.

20. The working system according to any one of claims 1-19, wherein the first movable member is movable in the direction parallel to the conveying direction of the substrate conveyor, while the second movable member is movable in the direction perpendicular to the conveying direction.

21. The working system according to any one of claims 1-19, wherein the first movable member is movable in the direction perpendicular to the conveying direction of the substrate conveyor, while the second movable member is movable in the direction parallel to the conveying direction.